Overview of Hepatitis B Vaccination Pilot Project in New York City

National Adult and Influenza Immunization Summit
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Outline

- Pilot Project Objective
- New York City (NYC) Demographics
- Interventions
- Results
- Challenges
- Lessons Learned
- Next Steps
Pilot Project Objective

- Work with stakeholders in the NYC Department of Health and Mental Hygiene (DOHMH) and outside organizations to provide education and vaccinate at-risk populations against the hepatitis B virus (HBV)

Targeted Populations

- NYC neighborhoods with acute HBV infection rates 1.2/100,000 residents or greater
- Populations with higher infection risk:
  - Chinese, Korean, African and Caribbean immigrants
  - Injection drug users
- DOHMH provides services where at-risk individuals are seen, including sexually transmitted infections clinics, correctional health facilities and tuberculosis clinics
NYC Demographics

- ~8.2 million people
  - ~37% foreign-born
- Comprised of 5 boroughs
  - Brooklyn, Manhattan, Queens, Bronx, Staten Island
- Racial/Ethnic Population
  - White 44%
  - Latino 29%
  - Black 26%
  - Asian 13%

Bureau of Immunization (BOI)
Pilot Project Partners

- **Internal Partners**
  - Bureau of Sexually Transmitted Infections (BSTI)
  - Bureau of Correctional Health Services (CHS)
  - Bureau of Tuberculosis (TB) Control (BTBC)
  - DOHMH HBV Workgroup
- **External Partners**
  - Community-Based Organizations (CBOs)
    - Charles B. Wang Community Health Center, African Services Committee, Korean Health Services
  - Intravenous Drug Use/Harm Reduction Clinic (IDU)
    - VOCAL: Voices Of Community Activists & Leaders
  - NYC Hepatitis B Coalition
Targeted Areas for HBV Interventions

- Washington Heights
  - TB Clinic
- Harlem, Manhattan
  - CBO-African Services Committee
- Chinatown, Lower Manhattan
  - CBO-Charles B. Wang
- Morrisania, Bronx
  - STI-TB Clinics
- Rikers Island, Queens
  - Main Correctional Facility
- Flushing, Queens
  - CBOs-Charles B. Wang, Korean Community Services
- Downtown Brooklyn
  - IDU-VOCAL

Interventions - High Level

- Distribute HBV vaccine and educational materials
  - NYC received 12,400 doses of HBV vaccine
- Conduct focus groups with adults to assess knowledge of HBV
- Provide education and referral for TB clinic patients
- Encourage reporting to Citywide Immunization Registry (CIR), the NYC immunization information system
- Enhance CIR functionality to include reminder/recall email and text messaging capabilities
  - To increase 2nd dose and 3rd dose completion rates
Interventions with BSTI

- Hire Registered Nurse (RN) to address issues identified during an earlier evaluation of HBV vaccination and service delivery
  - Inadequate time and materials for educating patients
  - Need for more dedicated staff to administer vaccines
  - STI Electronic Health Record (EHR) did not identify patients who were due for HBV vaccine
  - HBV vaccine not always recommended during non-treatment-related patient visits
  - Higher rates of vaccine refusal in certain demographic groups

- Hold focus groups to develop a messaging strategy that increases patient vaccination

Interventions with CHS

- Increase HBV vaccination and improve service delivery in NYC correctional facilities
  - Train staff to offer and provide HBV vaccines to all admissions
  - Incorporate HBV vaccination screening protocol
  - Identify the highest and lowest volume vaccinating facilities
  - Provide HBV health education for patients and staff
  - Document HBV and other vaccines in their EHR
  - Encourage patient consent to CIR
  - Target of 125 doses administered per month
Interventions with BTBC

- Provide HBV education to patients attending the Morrisania and Washington Heights TB clinics
- Develop referral form for patients seeking vaccination
  - Target of 500 BTBC patients accepting a referral that leads to vaccination over the course of the pilot project

Interventions with CBOs

- Recruit sites that treat adults at risk for HBV infection to provide vaccination and education
  - All five sites originally agreeing to participate withdrew before start of pilot project due to grant risk-assessment screening and reporting requirements
  - Required rapid action to replace CBOs with new sites
  - Recruited CBOs serving Asian, African and Caribbean immigrants, intravenous drug users
- Sites agree to operate as a referral location for vaccination
Enhance the CIR

- Add text and email reminder/recall functionality for use by providers who access the CIR

Results
HBV Vaccine Doses Ordered/Administered, All NYC Clinics

HBV vaccine doses distributed and administered November 2012 through September 2015
As of March 31, 2016, 12,343 doses had been used

Encounters: Doses Administered

<table>
<thead>
<tr>
<th>Clinic Type</th>
<th>1st Dose Administered</th>
<th>2nd Dose Administered</th>
<th>3rd Dose Administered</th>
<th>Total Doses administered</th>
</tr>
</thead>
<tbody>
<tr>
<td>STI Clinic</td>
<td>1828 (49%)</td>
<td>1155 (32%)</td>
<td>724 (19%)</td>
<td>3707</td>
</tr>
<tr>
<td>Correctional Health</td>
<td>3615 (63%)</td>
<td>1510 (26%)</td>
<td>582 (10%)</td>
<td>5707</td>
</tr>
<tr>
<td>Community-Based Orgs</td>
<td>829 (39%)</td>
<td>683 (32%)</td>
<td>604 (29%)</td>
<td>2116</td>
</tr>
<tr>
<td>IDU/Harm Reduction</td>
<td>6 (67%)</td>
<td>3 (33%)</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>6278 (54%)</td>
<td>3351 (29%)</td>
<td>1910 (17%)</td>
<td>11,539</td>
</tr>
</tbody>
</table>

HBV vaccine doses administered November 2012 through September 2015
HBV Vaccine Doses Administered by Race/Ethnicity, All Clinics

Number and percentage of HBV vaccine doses given

- 4799 (42%) Black Non-Latino
- 3976 (34%) Latino
- 1795 (16%) Asian Non-Latino
- 618 (5%) White Non-Latino
- 338 (3%) Other

HBV vaccine doses administered November 2012 through September 2015

HBV Vaccine Doses Administered by Gender, All Clinics

Number and percentage of HBV vaccine doses given

- 8936 (79%) Male
- 2598 (21%) Female
- 5 (<1%) Transgender

HBV vaccine doses administered November 2012 through September 2015
HBV Vaccine Doses Administered by Age, All Facilities

HBV vaccine doses administered November 2012 through September 2015

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Number of Doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>1449 (13%)</td>
</tr>
<tr>
<td>25-44</td>
<td>6380 (55%)</td>
</tr>
<tr>
<td>45-64</td>
<td>3479 (30%)</td>
</tr>
<tr>
<td>65+</td>
<td>231 (2%)</td>
</tr>
</tbody>
</table>

BSTI Clinic

- Hiring an RN was important in addressing clinical needs
  - Implemented reminder/recall process
  - Reminder letters and recall phone calls using tickler file
  - Participated with the HBV Workgroup to develop an updated HBV vaccination palm card for patients
  - Provided HBV counseling to patients
  - Ensured vaccination data entered into CIR

- EHR improved to capture HBV doses administered
CHS

- Implemented a consistent intake process which offered all patients vaccine upon admission
- Developed a HBV vaccination screening questionnaire for use in all admissions
- Encouraged co-vaccination when flu vaccine was offered
- Tracked patient vaccination in the CHS EHR
- Provided patients with health education materials
- Provided ongoing training and education to healthcare staff
  - Providers are reminded of monthly target goals if vaccination administration numbers are low or drop in their facilities
- Met their monthly target 80% of the time (28 of 35 months)

BTBC Clinics

- Developed educational referral form
- Goal of 1,500 referrals to be provided/500 vaccinated
- 1,890 patients were approached but most patients refused the referral form
**CBOs**

- BOI shared health education materials, held educational meetings/training with key staff
- Charles B. Wang sites have dedicated staff to provide vaccination, maintains relatively stable vaccination levels
- African Services Committee maintained vaccination levels until losing key medical staff
- VOCAL had poor staffing throughout, few doses given before leaving the program
- Korean Community Services joined the pilot project in May 2015

**HBV Focus Groups**

- Worked with BSTI and a vendor to develop questions for focus groups
- Recruited participants from the Bronx, Brooklyn and Queens
- Three focus groups formed: Spanish-speaking, foreign born and US born adults, age 28-60 years

**Key findings**

- Focus group participants were familiar with hepatitis in general, HBV symptoms and some of the ways the disease is spread
- While foreign-born and U.S.-born believe sexual contact is the most common way to transmit the virus, the Spanish-speaking group did not mention it
- Most foreign and U.S.-born adults were open to receiving an HBV vaccination from a trusted medical provider
- Focus group participants were uncertain about whether they received the HBV vaccine
HBV Focus Groups, Continued

- Tested prototype versions of the TB referral sheet and the DOHMH-produced palm card
  - Participants liked the inclusion of information about HBV’s risks and symptoms, and information that emphasizes HBV’s prevalence and contagiousness
  - Participants felt inclusion of the Health Department logo added credibility
  - Eye-catching colors and images were important

HBV Public Service Announcement

- Worked with media vendor to produce a PSA in three languages: English, Chinese and Spanish
- Completed in March 2015
- Shared PSA with pilot project participants, NYC Hepatitis B Coalition and other stakeholders
- An unbranded English version was shared with other grantees nationally
- Looked to integrate PSAs into medical facilities
- Posted on YouTube
Other Results

- CIR recall text message functionality is available to providers
- 90% of patients at all sites consented to have vaccine data entered into CIR
  - 100% in correctional settings but data entry an issue
  - Patient consent at CBOs serving Chinese populations ~60%.
- Stronger relationships with participating Bureaus within DOHMH and outside partner organizations

Challenges

- Grant risk-assessment screening and reporting requirements created a barrier for participation for some providers
- Legal (HIPAA) and technical issues concerning recall text delayed implementation
- CIR data entry is a problem at some facilities
Lessons Learned

- Solid infrastructure for vaccination within the facility is essential; having staff dedicated to providing vaccine is especially important.
- Keep reporting requirements minimal to recruit and retain vaccinating sites.
- Most adults are comfortable giving consent to have vaccination data in the CIR.
- Patient referral for vaccination was not successful.
- PSAs are not practical in every setting.

Next Steps: A Pearl of Wisdom - Sustainability

- Closeout interviews suggest pilot project not sustainable in some sites without a supply of no-cost vaccine.
- Consistent funding for vaccine is essential for DOHMH if it is to be the source.
- BOI to identify CBOs that can meet reporting requirements and have infrastructure to vaccinate under- and uninsured patients, as part of the Standards for Adult Immunization cooperative agreement.
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### Fellow HBV Pilot
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  - Chicago
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  - Louisiana
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  - Michigan
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  - Oregon
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  - Tennessee
  - Virginia
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### Thank you

Questions?

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